

State of Washington  
Division of Industrial Safety and Health

INDUSTRIAL HYGIENE INSPECTION SUMMARY FOR:

Roberts Environmental Services Inc.  
1719 Irving Rd.  
Eugene, Oregon 97402  
@ ASARCO Plant, Tacoma

Inspection # 375230  
ID # L6601  
Inspector: D. Lofgren  
Report Date: 3-2-87

An inspection was initiated on 1-22-87 for Roberts Environmental at ASARCO due to both an OHR and a complaint. The company was found to be an asbestos abatement contractor removing asbestos from structures prior to their demolition. The plant is in the process of being demolished and is under EPA supervision as a hazardous waste site.

An initial evaluation found that certified workers were being used and regulations regarding asbestos control were being followed. The company had been at the site less than a week at the time of the opening conference and was advised of the WISHA standard for arsenic and their need for complying. Asbestos removal was being conducted in areas of relatively low arsenic contamination. Other priority inspections at the site were conducted.

Monitoring for arsenic and asbestos was conducted on 2-19-87 after it was learned via a complaint that the company was working inside structures with high potential for excessive arsenic and asbestos exposure. Additional work in contaminated structures was planned. Sample analysis was requested on a rush basis. The Data Summary shows that high levels of arsenic were found. The asbestos removal was done in the plate treater #1 where the insides of the structure were contaminated with flue dust containing high percentages of arsenic trioxide and lead. One sample for asbestos was too overloaded for counting. The high total particulate level was indicative of insufficient use of water as a dust suppressant. It was learned that inadequate head covering had been used for the job for several days until this inspector visited the site due to the complaint and pointed out the probable violation due to skin contact with arsenic and potential for skin damage. The employer responded the same day with improvements in respirator and body covering, but the immediate project was at an end. This inspector had previously discussed with the superintendent the need for better covering and respirators should they ever have to work inside contaminated structures.

Other allegations about dry removal of asbestos could not be documented. The completion of one job resulted in minor amounts of asbestos residue outdoors. The employer was cautioned to better police the areas upon completion of a job.

The inspection was closed on 3-2-87. The following general violations were issued: not maintaining safety meeting minutes at the site; not taking asbestos samples representative of the eight hour time weighted average; no written arsenic control program; incomplete written operating procedures for use of respirators as protection from asbestos and arsenic and; no arsenic hazard training for some employees. Serious violations were issued for failure to use adequate amounts of water to suppress arsenic dust, and failure to use adequate head covering for high exposure to arsenic and provide protective boots at no cost to the employees.

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For: Roberts Environmental  
#375230  
Sample Date: 2-17-87

Data Summary - Asbestos Demo. in Plate Treater #1, ASARCO

| Name              | Operation  | Sample<br>time,<br>min. | Sampled Exposure                          |   |                           |                       | 8-hour TWA *                              |                           |                       |
|-------------------|--|-------------------------|---|---|---------------------------|-----------------------|---|---------------------------|-----------------------|
|                   |  |                         | Total<br>particulate<br>mg/m <sup>3</sup> | Inorganic<br>arsenic<br>μg/m <sup>3</sup> | lead<br>μg/m <sup>3</sup> | asbestos<br>fibers/cc | Inorganic<br>arsenic<br>μg/m <sup>3</sup> | lead<br>μg/m <sup>3</sup> | asbestos<br>fibers/cc |
| Percy<br>Nicholas | asbestos re-<br>moval, con-<br>taminant area<br>wash down        | 210                     | 13.2                                      | 1100                                      | 266                       | -                     |   |                           |                       |
|                   |  | 102                     | 1.1                                       | 59  | 13                        | -                     | 494                                       | 119                       | -                     |
| Lonnie<br>Miller  | asbestos re-<br>moval, con-<br>taminant area<br>wash down<br>" " | 205                     |   |   |                           | **                    |   |                           |                       |
|                   |  | 40                      |   |   |                           | 0.05                  | -   | -                         | **                    |
|                   |  | 60                      |   |   |                           | 0.04                  |   |                           |                       |
| Walter<br>O'Mealy | asbestos re-<br>moval, double<br>bag section                     | 212                     | 1.8                                       | 259                                       | 46                        | -                     | 114                                       | 20                        | -                     |
|                   |  | 98                      | 0.16                                      | <54                                       | <5                        | -                     |   |                           |                       |

\* Eight hour time weighted average

\*\* Sample fiber overload with dust and asbestos fibers, unable to count

Note: The WISHA 8-hour TWA limits for the above contaminants are as follows:  
arsenic - 10 μg/m<sup>3</sup>; lead - 50 μg/m<sup>3</sup> (150 μg/m<sup>3</sup> for construction); asbestos - 0.2 fibers/cc, proposed.